

In the Specification

1. Please rewrite the paragraph beginning on page 1, line 3 (with the words "This application...") and ending on page 1, line 8 (with the words "... as inventors.") as follows.

-- This application is a continuation of copending application Serial No. 08/759,602, filed December 5, 1996, by Raymond Clarke, Ray Stewart, Valentine Yoon, Donald Schultz and Bradley McClary. Serial No. 08/759,602 is a continuation-in-part of application Serial No. 08/453,108⁰¹⁸, filed May 30, 1995, by Raymond Clarke, Ray Stewart, Valentine Yoon, Donald Schultz and Bradley McClary, now abandoned. This application is also ~~related to and claims priority under 35 U.S.C. 119 and 365 from~~ ^{a continuation of} International Application number PCT/U.S. 96/07939, filed May 29, 1996, by Landec Corp., naming Raymond Clarke, Ray Stewart, Valentine Yoon, Donald Schultz and Bradley McClary as inventors. The entire disclosure of each of Serial numbers 08/453,108 and 08/759,602 and PCT/U.S. 96/0939 is incorporated herein by reference for all purposes. --

2. Please rewrite the paragraph beginning on page 2, line 27 (with the words "In describing...") and ending on page 3, line 15 (with the words "... second heating cycle.") as follows.

-- In describing the invention below, the following abbreviations, definitions, and methods of measurement are used. OTR is O₂ permeability. COTR is CO₂ permeability. OTR and COTR values are given in ml/m².atm.24 hrs, with the equivalent in cc/100 inch².atm.24 hrs given in parentheses. OTR and COTR were measured using a permeability cell (supplied by Millipore) in which a mixture of O₂, CO₂ and helium is applied to the sample, using a pressure of 0.7 kg/cm² (10 psi) except where otherwise noted, and the gases passing through the sample were analyzed for O₂ and CO₂ by a gas chromatograph. The cell could be placed in a water bath to control the temperature. The abbreviation P₁₀ is used to denote the ratio of the oxygen

permeability at a first temperature $T_1^\circ\text{C}$ to the oxygen permeability at a second temperature T_2 , where T_2 is $(T_1-10)^\circ\text{C}$, T_1 being 10°C and T_2 being 0°C unless otherwise noted. The abbreviation R is used to denote the ratio of CO_2 permeability to O_2 permeability, both permeabilities being measured at 20°C unless otherwise noted. Pore sizes given in this specification are measured by mercury porosimetry or an equivalent procedure. Parts and percentages are by weight, temperatures are in degrees Centigrade, and molecular weights are weight average molecular weights expressed in Daltons. For crystalline polymers, the abbreviation T_o is used to denote the onset of melting, the abbreviation T_p is used to denote the crystalline melting point, and the abbreviation ΔH is used to denote the heat of fusion. T_o , T_p and ΔH are measured by means of a differential scanning calorimeter (DSC) at a rate of $10^\circ\text{C}/\text{minute}$ and on the second heating cycle. T_o and T_p are measured in the conventional way well known to those skilled in the art. Thus T_p is the temperature at the peak of the DSC curve, and T_o is the temperature at the intersection of the baseline of the DSC peak and the onset line, the onset line being defined as the tangent to the steepest part of the DSC curve below T_p . --

3. Please rewrite the paragraph beginning on page 5, line 1 (with the words "In the coating...") and ending on page 5, line 13 (with the words "... biological material.") as follows.

-- The coating polymer should be selected so that the membrane has a desired P_{10} ratio and a desired R ratio, and should be coated onto the microporous film at a coating weight which results in a membrane having the desired balance between the permeability characteristics of the microporous film and of the coating polymer. For example, by choosing a crystalline coating polymer whose T_p is within or a little below an expected range of storage temperatures, it is possible to produce a membrane whose P_{10} is relatively large in the storage temperature range; furthermore, the size of the P_{10} ratio can be increased by increasing the ΔH of the coating polymer. Similarly, a membrane having a relatively large (or small) R ratio can be produced by selecting a coating polymer having a relatively high (or small) inherent R ratio. In this way, the

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Cont'd ✓ invention makes it possible to produce membranes whose properties can be tailored, much more closely than was previously possible, to the needs of a particular respiring biological material. ---

4. Please rewrite the paragraph beginning on page 5, line 28 (with the words "in a second preferred aspect, this invention...") and ending on page 6, line 6 (with the words "... as defined in the first aspect of the invention. ") by the following paragraph.

-- In a second preferred aspect, this invention provides a package which is stored in air and which comprises :

- (a) a sealed container, and
- (b) within the sealed container, a respiring biological material and packaging atmosphere around the biological material;

A4 ✓ the sealed container including one or more permeable control sections which provide at least the principal pathway, and optionally substantially the only pathway, for oxygen and carbon dioxide to enter or leave the packaging atmosphere, at least one said permeable control section being a gas-permeable membrane as defined in the first aspect of the invention. ---

TOTAL 12367
5. Please rewrite the paragraph beginning on page 7, line 24 (with the words "the preferred...") and ending on page 8, line 5 (with the words "... tradename 'Teslin'.") as follows.

As ✓ -- The preferred base film includes a finely divided, particulate, substantially water-insoluble, inorganic filler, for example a siliceous filler, which is distributed throughout the matrix and which is present in amount 50 to 90%, particularly 50 to 85%, by weight of the base film. The filler is preferably silica, particularly precipitated silica, especially silica having an average ultimate particle size of less than 0.1 micrometer. Preferably the filler occupies 35 to 80% of the total volume of microporous film. Particularly preferred, because they have a relatively narrow range of pore sizes, are films made a process comprising the steps of

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- (A) preparing a uniform mixture comprising the polymeric matrix material in the form of a powder, the filler, and a processing oil;
 - (B) extruding the mixture as a continuous sheet;
 - (C) forwarding the continuous sheet, without drawing, to a pair of heated calender rolls;
 - (D) passing the continuous sheet through the calender rolls to form a sheet of lesser thickness;
 - (E) passing the sheet from step (D) to a first extraction zone in which to the processing oil is substantially removed by extraction with an organic extraction liquid which is a good solvent for the processing oil, a poor solvent for the polymeric matrix material, and more volatile than the processing oil;
 - (F) passing the sheet from step (E) to a second extraction zone in which the organic extraction liquid is substantially removed by steam or water or both; and
 - (G) passing the sheet from step (F) through a forced air dryer to remove residual water and organic extraction liquid.

Such films are disclosed in US Patent Nos. 4,937,115 and 3,351,495, the disclosures of which are incorporated herein by reference, and are sold by PPG Industries under the tradename "Teslin".

6. Please replace the paragraph beginning on page 15, line 7 (with the words "SCC 1-15...") and ending on page 15, line 22 (with the word "... respectively.") as follows.

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-- SCC 1-15 and ACP. These acrylate polymers were prepared by polymerizing the monomers and parts by weight thereof shown in Table 1. In Table 1, the following abbreviations are used for the monomers. AA is acrylic acid, MAA is methacrylic acid, EHA is 2-ethylhexyl acrylate, C4A is butyl acrylate, C6A is hexyl acrylate, CY6MA is cyclohexylmethacrylate, C6DA is hexyldiacrylate, C12A is dodecyl acrylate, C12DA is dodecyl diacrylate, C14A is tetradecyl acrylate, C16A is hexadecyl acrylate, and C22A

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is behenyl acrylate. The monomers were copolymerized in a suitable solvent, e.g. toluene or a mixture of heptane and butyl acetate or ethyl acetate, using a suitable initiator, e.g. azobisisobutyronitrile (AIBN). For example, SCC11 was made by mixing the C6A and C14A with 0.31 parts of AIBN in a 4:1 mixture of heptane and ethyl acetate, and maintaining the mixture at 50°C for 2 days, to give a product having a weight average molecular weight of about 970,000 and a T_p of about 12.5°C. SCC 5 was made by polymerizing the C22A alone, functionalizing the resulting homopolymer with isocyanatoethylmethacrylate, and then polymerizing the other monomers with the functionalized homopolymer. →

7. Please rewrite the paragraph beginning on page 18, line 10 (with the words "Examples 1-10...") and ending on page 18, line 16 (with the word "... ratios.") as follows.

-- Examples 1-10 and C1-4 are summarized in Tables 2-4 below. In each of the tests, the substrate identified in Table 2 was coated with a solution containing the identified percentage of the identified coating polymer. The coated substrate was dried, and its permeability to O_2 and CO_2 was measured at the temperature indicated in Table 2. The results are reported in Table 2. In some cases, the P_{10} ratios were calculated, as shown in Tables 3 and 4. --

8. Please replace Table 2 on page 19 with the following amended Table 2.

Table 2

Ex No.	Substrate	Coating Polymer		Permeability		
		Type	%	OTR	Ratio CO ₂ /O ₂	°C
*1A	CG	SCC1	2	**	1.0	20
*B			5	**	1.0	20
*C			10	**	1.0	20
*D			20	**	1.0	20
*E	MSX	SCC1	2	**	1.0	20
*F			5	**	1.0	20
*G			10	**	1.0	20
*H			20	487,475 (31,450)	1.86	20
*I			25	63,689 (4,109)	5.75	20
*J			30	44,175 (2,850)	6.5	20
*K	Van L	SCC1	2	403,077 (26,005)	1.32	20
*L			5	29,636 (1,912)	3.92	20
*M			10	62,558 (4,036)	2.39	20
*N			20	62,310 (4,020)	2.42	20
O	Teslin SP7	SCC1	2	2,413,458 (155,707)	2.95	20
P			5	1,021,140 (65,880)	4.86	20
Q			10	602,547 (38,874)	5.22	20
R			20	425,025 (27,421)	5.48	20
2A	Teslin SP7	Tflex	5	1,076,537 (69,454)	2.34	20
*B			7	238,024 (15,368)	5.9	20
*C			15	108,856 (7,023)	6.19	20
D	Teslin SP7	Sil	35	1,607,799 (103,729)	2.98	20
E			40	987,319 (63,698)	4.13	20
F			50	809,627 (52,234)	4.7	20
*G			100	391,824 (25,279)	5.3	20
H	Teslin SP7	CisPB	2	3,712,994 (239,548)	2.8	20
I			5	2,451,728 (158,176)	4.39	20
J			10	888,987 (57,354)	6.45	20
*K			20	392,925 (25,350)	7.2	20
*L	Teslin SP7	Kton	5	293,570 (18,940)	4.4	20
*M			10	116,606 (7,523)	4.7	20
*N			20	46,887 (3,025)	5.0	20
O	Teslin SP7	TPX	5	974,841 (62,893)	3.35	20
P			5	923,598 (59,587)	3.3	20
Q			2	2,798,478 (180,547)	2.38	20

*comparative example

**permeability too high to measure

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9. Please replace Table 2 (continued) on page 19 with the following amended Table 2 (continued).

Table 2 (continued)

Ex. No.	Substrate	Coating Polymer		Permeability		
		Type	%	OTR	Ratio CO ₂ /O ₂	°C
3A	Teslin SP7	SCC2	10	637,592 (41,135)	4.94	20
B		SCC3	5	927,861 (59,862)	4.81	20
*C		ACP	5	403,728 (26,047)	5.8	20
D		CisPB	5	2,092,934 (135,028)	4.8	20
E		*CisPB + SCC8	5	1,205,559 (77,778)	5.3	20
F		SCC4	2	1,883,389 (121,509)	3.3	20
*G		SCC4	10	687,688 (44,367)	5.2	20
H		SCC5	-	930,854 (60,055)	4.72	20
I		SCC6	10	812,959 (52,449)	5.10	20
*J		SCC7	25	410,440 (26,480)	5.23	20
4A	Teslin SP7	CisPB	5	125,218 (80,786)	6.50	0
B		CisPB	5	1,367,875 (88,250)	6.09	5
C		CisPB	5	1,579,000 (101,871)	5.51	10
D		CisPB	5	1,839,323 (118,666)	5.43	15
E		CisPB	5	2,092,934 (135,028)	4.82	20
F		CisPB	5	2,328,952 (150,255)	4.55	25
*G		*CisPB + SCC8	5	320,617 (20,685)	5.5	0
*H		*CisPB + SCC8	5	394,304 (25,439)	5.5	5
*I		*CisPB + SCC8	5	512,848 (33,087)	5.4	10
*J		*CisPB + SCC8	5	722,455 (46,610)	5.3	15
K		*CisPB + SCC8	5	1,205,559 (77,778)	5.3	20
L		*CisPB + SCC8	5	1,520,379 (98,089)	5.2	25
M		SCC10	5	1,020,628 (65,847)	5.93	22.2

*a mixture of CisPB (80 parts) and SCC8 (20 parts)

11. Please replace Table 2 (continued) on page 21 with the following amended Table-2 (continued)

Table 2 (continued)

Ex. No.	Substrate	Coating Polymer		Permeability		
		Type	%	OTR	Ratio CO ₂ /O ₂	°C
*5A	Teslin SP7	SCC11	6.5	†386,461 (24,933)	6.06	0
*B			6.5	†521,141 (33,622)	6.16	5
C			6.5	†1,048,590 (67,651)	6.12	10
D			6.5	†1,474,933 (95,157)	5.78	15
E			6.5	†1,825,001 (117,742)	5.53	20
F			6.5	†2,225,753 (143,597)	5.21	25
G			6.5	†2,587,33 (166,926)	4.88	30
6	Teslin SP7	SCC12	6.5	†1,286,500 (83,000)	5.29	22
7A	Teslin X457	SCC13	2	†4,022,699 (259,529)	3.92	22
B			1.5	†8,789,414 (567,059)	2.62	22
C			1.3	†13160,662 (849,075)	1.68	22
7D	Teslin SP7	SCC13	1	†8,693,239 (560,854)	2.75	22
E			1.5	†3,262,486 (210,483)	4.88	22
F			2	†2,766,083 (178,547)	5.48	22
G			3	†1,869,005 (120,581)	6.03	22
8	Teslin SP7	SCC13	3	†1,518,643 (97,977)	6.32	22
9		SCC15	6.5	†1,758,196 (113,432)	5.58	22
10		SCC16	3.8	†1,113,241 (71,822)	7.06	22
*C1	Roplast	None	-	†3,859 (249)		22
*C2	BF915	None	-	†4,836 (312)		22
*C3	LB710	None	-	†5,161 (333)		22
*and C4	CVP	None	-	†5,130 (331)		22

† OTR and COTR were measured at a pressure of 0.035 kg/cm² (0.5 psi) in Examples 5-10 and C1-C4.

12. Please replace Table 3 on page 21 with the following amended Table 3

Table 3

Ex No	3A	3B	3C*	3D	3E	3F	3G*	3H	3I	3J*
P ₁₀ (0-10°C)	2.79	2.00	1.31	1.26	1.60	2.41	3.13	-	4.72	4.33
P ₁₀ (20-30°C)	-	-	-	1.34	2.35	-	-	2.73	-	-

13. Please replace Table 4 on page 21 with the following amended Table 4

Table 4

Ex No	4A	*4G	5A	8	9	10	11	*C1	*C2	*C3	*C4
P ₁₀ (0-10°C)	1.26	1.6	†2.7 1	†1. 4	†2. 4	†2.8	†3. 5	†1.5 4	†1.8 2	†1.7 4	†1.7 9
P ₁₀ (10-20°C)	1.33	2.35	-	-	-	-	-	-	-	-	-

† OTR's in Examples 5A, 8-10 and C1-C4 were measured at a pressure of 0.035 kg/cm² (0.5 psi).

14. Please rewrite the paragraph beginning on page 23, line 3 (beginning with the words "Example 13 is...") and ending on page 23, line 15 (with the words "... and 55 °C.")

as follows.

-- Example 13 is summarized in Table 6. Fresh broccoli was sealed into storage bags (23 x 28 cm) and stored for 13 days at 45° F, or for 9 days at 45° F and 4 days at 55° F. Four control bags (C5 - C8) were composed entirely of polyethylene. The other four bags (13A - 13D) were bags of the invention and were identical to the control bags except that a hole of 4.76 cm diameter was cut in the polyethylene and sealed by means of a membrane which had an O₂ permeability of 1,224,500 (79,000) and which had been prepared by coating Teslin SP7 with the SCC10 polymer. At the end of the storage period, the O₂ and CO₂ concentrations in the bag were measured. The results are shown in Table 5. The broccoli was then cooked for 1 minute in a microwave oven at the "high" setting. The broccoli from all the control bags had a strong and offensive odor and flavor before and after cooking. The broccoli from all the bags of the invention

had no unpleasant odor or flavor before or after cooking; the broccoli stored at 45° F for all 13 days was in better condition than that stored at 45° F and 55° F. --

15. Please replace Table 6 on page 23 by the following amended Table 6.

Table 6

	Storage		After Storage	
	Days at 45° F	Days at 55° F	% CO ₂	% O ₂
C5	13	0	8.3	0.29
C6	13	0	8.0	0.79
C7	9	4	9.1	0.46
C8	9	4	8.5	0.32
13A	13	0	4.1	2.89
13B	13	0	4.8	10.9
13C	9	4	4.1	1.04
13D	9	4	4.3	1.00

16. Please rewrite the paragraph beginning on page 25, line 10 (beginning with the words "Sample 16B...") and ending on page 25, line 11 (with the words "... and pressure.") as follows.

-- Sample 16B A laminate of Sample 16 A and Teslin SP7, the Teslin being laminated to the coated face of Sample 16A under heat and pressure. --

In the Claims

Please rewrite claims 1-8, 11-13 and 16 as set out below; cancel claims 9, 10, and 17-19; and add new claims 20-29 set out below.

In accordance with 37 CFR 121 (c):

- (1) A clean version of the entire set of pending claims is set out below. In this version,
- (i) the amended claims are without markings to indicate the changes made,

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(ii) in each claim, a parenthetical expression follows the claim number indicating the status of the claim as amended, unchanged or view, and the cancellation of claims 9, 10, and 17-19 has been noted.

(2) Attached hereto is a separate paper entitled "Version of Amended Claims with Markings to show Changes requested by the Accompanying Preliminary Amendment, in accordance with 37 CFR 1.121(c)(1)(ii)". This separate paper sets out each of the rewritten claims, marked up to show all the changes relative to the previous version of the claim. In this version,

(i) a parenthetical expression (which is the same as the parenthetical expression in the clean version of claims set out below) follows the claim number and indicates the status of the claim as amended, and

(ii) the changes are shown by brackets (for deleted matter) and underlining (for added matter).

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1. (Amended) A gas-permeable membrane which is useful in the packaging of respiring biological materials and which comprises

(a) a microporous polymeric film comprising a network of interconnected pores such that gases can pass through the film, and

(b) a polymeric coating on the microporous film,

wherein

(1) the pores in the microporous film have an average pore size of less than 0.24 micron; and

(2) the microporous film was prepared by a process comprising the steps of

(A) preparing a uniform mixture comprising the polymeric matrix material in the form of a powder, the filler, and a processing oil;

(B) extruding the mixture as a continuous sheet;

(C) forwarding the continuous sheet, without drawing, to a pair of heated calender rolls;

(D) passing the continuous sheet through the calender rolls to form a sheet of lesser thickness;

(E) passing the sheet from step (D) to a first extraction zone in which to the processing oil is substantially removed by extraction with an organic extraction liquid which is a good solvent for the processing oil, a poor solvent for the polymeric matrix material, and more volatile than the processing oil;

(H) passing the sheet from step (E) to a second extraction zone in which the organic extraction liquid is substantially removed by steam or water or both; and

(I) passing the sheet from step (F) through a forced air dryer to remove residual water and organic extraction liquid; and

(3) the polymeric coating has a thickness such that the membrane

(i) has a P_{10} ratio, over at least one 10°C range between -5 and 15°C, of at least 1.3;

(ii) has an oxygen permeability (OTR), at all temperatures between 20°

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and 25°C, of at least 775,000 ml/m².atm.24 hrs (50,000 cc/100 inch².atm.24 hrs; and

(iii) has a CO₂/O₂ permeability ratio(R) of at least 1.5;
the P₁₀, OTR and R values being measured at a pressure of 0.035 kg/cm² (0.5 psi)

2. (Amended) A membrane according to claim 1 wherein the microporous film comprises a polymeric matrix selected from the group consisting of

- (i) an essentially linear ultrahigh molecular weight polyethylene having an intrinsic viscosity of at least 18 deciliters/g and
- (ii) an essentially linear ultrahigh molecular weight polypropylene having an intrinsic viscosity of at least 6 deciliters/g.

3. (Amended) A membrane according to claim 1 wherein at least 70% of the pores in the microporous film have a pore size of less than 0.24 micron.

4. (Amended) A membrane according to claim 1 wherein at least 90% of the pores in the microporous film have a pore size of less than 0.24 micron.

5. (Amended) A membrane according to claim 1 wherein substantially 100% of the pores in the microporous film have a pore size of less than 0.24 micron.

6. (Amended) A membrane according to claim 1 wherein at least 80% of the pores in the microporous film have a pore size less than 0.15 micron and at least 70% of the pores have a pore size less than 0.11 micron.

7. (Amended) A membrane according to Claim 1 which has an OTR of at least 1,550,000 ml/m².atm.24 hrs (100,000 cc/inch².atm.24 hrs), and an R ratio of at least 2, the OTR and R values being measured at a pressure of 0.7 kg/cm² (10 psi).

8. (Amended) A membrane according to claim 7 which has an OTR of at least 2,325,000 ml/m².atm.24 hrs (150,000 cc/100 inch².atm.24 hrs) measured at a pressure of 0.7 kg/cm² (10 psi).

Claims 9 and 10 canceled by this Preliminary Amendment.

11. (Amended) A membrane according to claim 1 wherein the coating polymer is polydimethyl siloxane.

12. (Amended) A membrane according to claim 1 wherein the coating polymer is cis-polybutadiene, poly(4-methylpentene) or ethylene-propylene rubber.

13. (Amended) A membrane according to claim 1 wherein the coating polymer has been crosslinked.

14. (Unchanged) A membrane according to claim 1 wherein the coating polymer has at least one of the following characteristics:

- (1) it is an acrylate polymer containing at least 40% by weight of units derived from a cycloalkyl acrylate or methacrylate;
- (2) it is a fluoropolymer;
- (2) it is an acrylate polymer containing units derived from a fluoroalkyl acrylate or methacrylate;
- (3) it is an acrylate polymer containing 10 to 70% of units derived from a polyethylene glycol acrylate or methacrylate.

15. (Unchanged) A membrane according to claim 1 wherein the microporous polymeric film contains pores which are partially blocked by a polymer having an R ratio of less than 1.3 or by a particulate material, or (b) has an OTR before coating of less than 15,500,000 (1,000,000).

16. (Amended) A package which is stored in air and which comprises

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- (a) a sealed container, and
 - (b) within the sealed container, a respiring biological material and a packaging atmosphere around the biological material;

the sealed container including one or more permeable control sections which provide at least the principal pathway for oxygen and carbon dioxide to enter or leave the packaging atmosphere, at least one said permeable control section being a gas-permeable membrane as defined in claim 1.

Claims 17-19 canceled by this Preliminary Amendment

20. (New) A gas-permeable membrane which is useful in the packaging of respiring biological materials and which comprises

- Sub B3
- (a) a microporous polymeric film comprising a network of interconnected pores such that gases can pass through the film, and
 - (b) a polymeric coating on the microporous film,

wherein

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- (1) the pores in the microporous film have an average pore size of less than 0.24 micron;
 - (2) at least 70% of the pores in the microporous film have a pore size of less than 0.24 micron;
 - (3) less than 20% of the pores in the microporous film have a pore size less than 0.014 micron;
 - (4) less than 20% of the pores in the microporous film have a pore size greater than 0.13 micron; and
 - (5) the polymeric coating has a thickness such that the membrane
 - (i) has a P_{10} ratio, over at least one 10°C range between -5 and 15 °C, of at least 1.3;
 - (ii) has an oxygen permeability (OTR), at all temperatures between 20° and 25°C, of at least 775,000 ml/m².atm.24 hrs (50,000 cc/100 inch².atm.24 hrs; and
 - (iii) has a CO₂/O₂ permeability ratio(R) of at least 1.5;
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the P_{10} , OTR and R values being measured at a pressure of 0.035 kg/cm^2 (0.5 psi).

21. (New) A membrane according to claim 20 wherein at least 90% of the pores in the microporous film have a pore size less than 0.24 micron.
22. (New) A membrane according to claim 20 wherein substantially 100% of the pores in the microporous film have a pore size less than 0.24 micron.
23. (New) A membrane according to claim 20 wherein at least 80% of the pores in the microporous film have a pore size less than 0.15 micron and at least 70% of the pores in the microporous film have a pore size less than 0.11 micron.
24. (New) A membrane according to claim 20 which has an OTR at all temperatures between 20°C and 25°C of at least $1,550,000 \text{ ml/m}^2 \cdot \text{atm} \cdot 24 \text{ hrs}$ ($100,000 \text{ cc/inch}^2 \cdot \text{atm} \cdot 24 \text{ hrs}$) and an R ratio of at least 2.5, the OTR and R values being measured at a pressure of 0.035 kg/cm^2 (0.5 psi).
25. (New) A membrane according to claim 20 which has an OTR of at least $2,325,000 \text{ ml/m}^2 \cdot \text{atm} \cdot 24 \text{ hrs}$ ($150,000 \text{ cc/100 inch}^2 \cdot \text{atm} \cdot 24 \text{ hrs}$) measured at a pressure of 0.07 kg/cm^2 (10 psi).
26. (New) A membrane according to claim 20 wherein the coating polymer is polydimethyl siloxane.
27. (New) A membrane according to claim 20 wherein the coating polymer is cis-polybutadiene, poly(4-methylpentene) or ethylene-propylene rubber.
28. (New) A membrane according to claim 20 wherein the coating polymer has been crosslinked.